GTAS January 2010 Monthly Report

In January there was a combination of software development to support GTAS data processing, modifications to the client, and set up GTAS client & server software for both New York and Kansas deployments. We also travelled to Central Region Headquarters in Kansas City to discuss the Project with NWS staff from both the Regional Headquarters and the Weather Forecast Office, and preparation for the TCIP Conference.

Deployment Data Localization

For each deployment, we set up "first guess" aerial coverage domains to support the high-resolution plume model data and display requirements. We submit these domains to the deployment site WFO to get their feedback. Once the final inner scale and outer scale domains are set we develop the processing systems needed to extract all the data available for that site and ingest it into the GTAS server. This is what's referred to as the "localization". This is a manual, labor intensive process that will only become more arduous as we add more and more deployment sites. In January we began development to create a generic localization. We would use this as an arbitrary inner/outer cookie cutter like area that hopefully can be applied to future deployments.

Gridded Binary Decoders

In AWIPS NOAA uses Gridded Binary data decoders to translate various types of meteorological data streams available from the NOAA-PORT satellite broadcast network to the WFOs. These decoders ingest data files that are processed, stored and displayed for forecasters on AWIPS. In January we set up separate GRIB decoders to help accommodate the large volume of non-NOAA-Port local model data required for GTAS.

Map Data

We're writing/modifying and testing scripts to automatically download, extract and organize shapefiles from CENSUS data. We've completed the collection of the shapefile database for both New York and Kansas deployments.

High Resolution Model

In January we set up the configuration files to begin running the high-resolution WRF-NMM gridded data over New York and Kansas.

Data Monitoring System

In January we began development of a local data monitor for the GTAS server ingest processes. This will help the Regional IT staff perform GTAS data server trouble shooting.

Travel to Kansas City

In January we met with staff from NWS Central Region Headquarters (CRH) and the WFO to introduce the project to their respective forecasters, warning coordination meteorologist, IT personnel and CRH management. After the GTAS presentation there was a long discussion

about how the WFO staff will support the project. By the end of the day everyone agreed to work with us and that the WFO would coordinate with Johnson County Kansas EOC and the Kansas State EOC as GTAS client collaboration sites.

TCIP Conference Preparation

We prepared two systems for the TCIP Conference which included modifications to the GTAS Client and ran tests of both real-time and archived data (in the event that we could not establish connectivity to the GTAS server from the conference hall).